ocean

Tidal Waves

Period of Ocean Waves

Waves in the ocean are caused by several factors, such as earthquakes/landslides (tsunamis), ships, and the gravitational pull of the sun and moon (tidal waves). The most common wave producer is the wind. As the wind blows over the water's surface, pressure and friction disturb the equilibrium, causing ripples.

The size of the wave depends on three factors: wind speed, distance of open water the wind blows over (fetch), and length of the gust (duration). Occasionally, "rogue waves" are spotted in the ocean, reaching as high as 30 meters. When measuring waves, the following terms are used:

- **Crest** – highest point on the wave
- **Trough** – valley between two waves (the lowest point)
- **Wavelength** – horizontal distance between any point and its corresponding point of two consecutive waves
- **Wave height** – vertical distance between the top of one wave crest and the bottom of the next trough

Tide changes are a result of the cyclical rising and falling of the ocean's surface caused by gravitational pulling forces of the moon and sun. The tide synchronized with the moon is the largest. There are normally two high tides and two low tides every day. On average, high tides occur 12 hours and 24 minutes apart, corresponding to the earth's rotation and moon's orbit patterns.

General Science: Which of the following times is the level of tide most likely to change the most:
W) in the first hour after low tide
X) in the first 2 hours preceding any high tide
Y) in the 2 hours in the middle of the interval between high and low tide
Z) at the last half hour before low tide

Answer: Y) in the 2 hours in the middle of the interval between high and low tide

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 2007	June 2007	1	2	3	4 — Registration Deadline for June ACT	5 — SAT and Subject Test Date
6	7	8	9	10	11	12
13 — Mother's Day	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28 — Memorial Day	29	30	31		

April 2007

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

June 2007

S	M	T	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

may 2007